mon which we shall mainly dwell.

It is generally believed in this country that he whole coast region of Colombia and all the valley of the River Magdalena is extremely phealthful and that the native of a temperate dime can sojourn there only at the peril of his Mr. Scruggs tells us that Barranquilla, eastern terminus of the Bolivar Railway, a dty of some thirty-five thousand souls, lying shout fourteen miles above the main mouths of the Magdalena, is, as a matter of fact, considered one of the healthiest localities on the coast of the Caribbean, although the tempersture seldom falls below 85 degrees Fahrenhei during any hour of the year, and is often up a the 90s Neither does any part of the Magdalena Valley deserve its bad reputation. There in undoubtedly an abundance of malaria at certain seasons; but this would soon disappear ander proper drainage and cultivation. As it to the climate is not much worse than that of some sections of Mississippi and Louisiana; with proper attention to hygienic laws the foreigner need not be alarmed about fever, which here is generally of a mild type and yields readily to medical treatment. Another prevalent opinion is that the forests and jungles of the Magdalena Valley, which must be traversed on the route to Bogota, are full of poisonous snakes and reptiles. Let us hear our author "Although I have passed up and down this river more times than I can remember, and have spent whole weeks at a time in the wilds of the Andes. I never saw one or two insignificant-looking snakes and these were not of a venomous species. I never once encountered a rattlesnake, nor shything more formidable than the negue [a scopic insect which bores into the flesh! and the scorpion.

The very same travellers who denounce

the coastwise and middle regions of Colombia have been accustomed to eulogize Bogota as an earthly paradise. It is well known that the Colombia capital stands on a highland plain, which is nearly nine thousand feet above the sea, By those who have had only a brief someintance with it the climate of the plateau is described as perfect. The mean temperature is about 62 degrees, the mercury rising above 65 degrees or falling below 59 degrees all the year round. The atmosphere is singularly clear, thin, pure and exhibarating: sometimes rather crisp and chilly, but always soft, balmy and agreeable, even to the weakest lungs. The plateau seems, in truth, a region of perpetual spring, where flowers bloom every month in the year and all nature seems bright and joyous. Mr. Scruggs. however, who has had a long acquaintance with Bogota, points out that what one encounters there is not the springtime of the temperate zone, but rather an abnormal climate, where spring, summer, autumn and winter are harmoniously blended into one continuous season. The sun shines with dazpower. Umbrellas and parasols are not needed for protection from its rays, and one rarely perspires. Sunstrokes and frosts are alike unknown, and one experiences none of the lassitude so common in the springtime of the north temperate zones. There is little or no malaria; 'yellow fever is unknown; and pneumonia, pleurisy and pulmonary consumption are seldom heard of. Thick flannels are always needed, and at morning and evening fall all the doors and windows must be closed and thick blankets are required. You will always feel comfortable, it seems, while walking ut in the open air: but if you sit still in the house long at a time a strange coldness and symboless will be felt in the lower limbs: for this there is but one remedy, namely, to get and walk out. A brisk walk of fifteen minwill send the blood to the extremities, and the whole body will be in a glow. It is vain to think of recourse to stoves and fireplaces. These have been tried many times. and always with the same result. The atmosphere is so thin and light that a stove or grate soon exhausts the oxygen in a room and a ing of suffocation follows. If, to avoid this inconvenience, a window be opened, the fire proves of little benefit and the draught unpleasant. It is quite impossible to work or study in Bogota with the same continuity as at lower latitudes. According to Mr. cruggs, four hours daily is about the maximum for the average brain-worker. If, in the coness of robust health, one ventures beyond this limit, alarming symptoms are soon developed, such as loss of appetite, insomnia, ness and nervous exhaustion; unless these premonitions are heeded, nervous prostration, paralysis, and sometimes partial insanity, are likely to ensue. It is a common belief that respiration at the altitude of Bogota is more or less difficult and painful. No doubt a shortness of breath is experienced by strangers on first visiting the plateau, but this soon passes away, and after the first week or two lungs expand and adjust themselves to the thin air. Of course, respiration will be deeper and more rapid than at the coast, but the adfustment becomes automatic and is performed sciously. The blood is forced through the arteries and veins at an increased rate. and the pulse, which may be normal at 75 strokes on the coast, will here rise into the eighties. The machinery is not out of order: it is simply rupoing at a greater speed. For this very reason, however, the inhabitants of this beautilooking, are generally short-lived. A man is at 60. The premature decay is compensated by a remarkable precocity. Girls marry at 14; among the lower classes they

times grandfathers at 30. Maracaibo, situated on the great lake of it "the graveyard of earthly hopes and fears." really less than at Caracas, although the latter town, like Bogota, has the rejutation of being an earthly paradise. The average temperature at Maracaibo is about so degrees Fabrenheit, which, in the humid atmosphere is quite op-It is situated on a sandy plain, where there is of the other Caribbean ports. La Guayra, the coaport of the Venezuelan capital, was described by Humboldt as "a deadly place;" and the description has stuck to it. Mr. Scruggs had name and at present is one of the health lest localities on the Caribbean coast. The extremes of temperature range from 74 de- are not popular with either. In fact, they grees Fahrenheit in winter to 94 degrees I seem to be secretly disliked by both, though

in summer; and while there are sporadic cases of yellow fever at nearly all seasons, the disease seldom becomes epidemic, and, if taken in time, yields readily to medical treatment. The atmosphere, though hot and parching, is singularly free from malaria, and the climate is regarded as a specific for neuralgia, rheumatism and many of the forms of throat disease common in the more elevated and cooler regions of the interior After several years of somewhat close acquaintance with the place, Mr. Scruggs was forced to the conclusion, quite contrary to his firstimpressions, that La Guayra is at all seasons of the year a much more healthful locality than Caracas. Although the last-named city is 3.000 feet above the sea, the atmosphere of the Chacao Valley, in which it stands s somewhat damp and malarious, while mountain fevers, catarrh, liver complaints and infammatory rheumatism are common ailments. During the months of July, August and September the whole valley, and especially the city of Caracas, is sometimes visited by a species of violent fever, which occasionally becomes epidemic. It is not the genuine "Yellow Jack" of the coast cities, or such as is encountered in Havana or New Orleans: but it is something very near akin to the latter malady, and is often even more rapid and fatal in its results. It is known as the "pernicious fever:" we are told that strangers liable to be affected by such epidemics should never come to Caracas in nidsummer.

What, according to Mr. Scruggs, is the health iest spot in the whole Caribbean region? It s the little Dutch island of Curação, situated just off the Venezuelan coast, a few leagues from Puerto Cabello and Maracaibo, less than twelve hours' sail from La Guayra and about eighteen from Carthagena. The soil of the island, in so far as it can be said to have any. for it is little else than alternate beds of coral and phosphate, is arid and non-productive. One ees nothing growing there but a few cactuses and dwarf thorns, the nispera shrub, which resembles the crab apple, and the little sour orange, which, though totally unfit to eat, is turned to account in the manufacture of the well-known cordial known to commerce as curação. Even the hardy Bermuda grass, which is supposed to thrive almost anywhere in the tropics, cannot be made to grow here, and there are no lawns or flower gardens. The climate is hot, but dry and healthful. There are no malarial fevers, and such maladies as neuralgiel rheumatism, pleurisy and consumption are linknown. Even "Yellow Jack," the common courge of the tropics, cannot live in Curação, and about the only disease indigenous to the island is leprosy in one or another form. Rarely, however, is a white person attacked by this disease. Its victims are generally negroes, or their mixed descendants, or the mixed descendants of whites and Indians. Mr. Scruggs tells us in a footnote that quite recently there has been discovered in Venezuela a plant known to the native Indians as tuatra, but classified botanically as Jatropha gossypifolla, which is said to be a specific for lenrosy. The plant grows in a dry, sandy soil mixed with clay t an average height of about four feet. Its leaves and stems are a beautiful purple. It bears a fruit about a third of an inch in diameter, which is covered with fuzzy, velvety hair. Each pod contains three seeds, from which a strong oil is extracted. This oil is administered internally; two ounces, diluted in water, are given twice a day. The assertion is made by those who have experimented with the oil that it will cure an ordinary case of leprovy in less than three months. From his experience of Curação our author is inclined to think that there may be some foundation for the statement that in arid climates people are good natured. It is certainly true, he says, that he never saw a more even-tempered and amiable people than are the Curaçãoans; the merchants and shopkeepers of the place are models of courtesy. You see no sour visages or sowling brows as in Caracas, where every third man has trouble with his liver; neither do you hear any snarling or angry tones; there has never been anything like an organized labor riot or strike on the island. There are no "sand-lot" polit curação. Even the hardy Bermuda grass, which is supposed to thrive almost anywhere i erally. The negroes and mulattoes do not dif-fer in appearance or in average intelligence from those seen in the other West Indian islands, but they are more civil and better behaved than those in Havti, Jamaica or St. Thomas. They are proverbially volite and good natured; but although usually scrupu-lous in the observance of the external forms of the Catholic religion, they are generally ob-livious of the Seventh Commandment.

П. What is likely to be the future of the so called Latin race in the New World? Few persons are better qualified than the author of this book to discuss this interesting question. We say so-called Latin race, because, although the inhabitants of Spanish and Portugues America have derived their language, their religion, their system of law and most of their social usages from Spain and Portugal, there is in them after all only a relatively small infusion of Spanish or Portuguese blood. What we have before us in Mexico, Central America and South America is a mongrel race impossible of exact ethnological classification. Humboldt attempted a classification, which has been generally adopted by subsequent writers, but Mr. Scruggs points out that it is manifestly defective. Humboldt tells us that "the whites of pure blood" found in those countries. "are the descendants of Europeans;" that the so-called Indians "are descendants of the native copper-colored race;" that "the negroes are descendants of slaves imported from Af rica;" that "the mulattoes, quadroons and octoroons are the mixed descendants of whites and negroes;" that "the mixed descendants of negroes and Indians are called Zambos;" and that "the mixed descendants of Indians and whites are called Mestizos." But how, our author asks, shall the complex mixture of all these varieties be classified? Humboldt fails to propound a name for the conglomerate of all these mixtures; yet it is precisely this nondescript compound which constitutes the majority in some parts of Spanish-America, and which seems to be "the coming race" on the Southern Hemisphere. Let us see what the actual state of things

is in the Federal republic of Colombia, which is one of the subjects of special study in this volume. In Colombia the whites of pure blood are found in nearly all parts of the Commonwealth, but more generally on the table lands of the interior. The civilized Indians of pure blood inhabit the slopes and valleys of the Andes, and still constitute the mass of the rural population. According to Mr. Scruggs they are "a remarkably docile and peace-loving people; generally small agriculturists, marketmen or farm laborers. They are simple-minded superstitious, reticent, evasive and untruthful but they are seldom thieves and never highway robbers. They are naturally civil, kindhearted and hospitable, but it would be surprising if, after centuries of such experiences as they have had, they were not habitually suspicious of strangers." We observe next that the negroes of pure blood are most numerous on the coasts and in the hot and malarious vallevs of the great rivers. Sometimes they are ful region, though usually healthy and robust- small traders; sometimes they are carpenters, masons and contractors; a few are small agrithought to be old at 45 or 50, and worthless culturists; but the majority of them lead idle and aimless lives and are shiftless and improvident. Of the educated individuals among them, too many are vagabond politicians or professional "revolutionists," with no thought sometimes become mothers at 12 and 13 Boys graduate from college at 16 and 17, and of making a living in any other way than by vote at 18, are active poli icians at 20, someholding a Government office. The Mestizos, or mixed descendants of Indians and whites, are most numerous in the towns and cities of the same name, and one of the most important the interior, where the middle-class persons commercial marts of Venezuela, is a city that among them are generally shopkeepers, mehas a very bad name abroad. It is called "a chanics and artisans, the lower classes being sickly place," and a European writer who may domestics and day laborers. Those Mestizos have seen it once for an hour or so, pronounced t who are educated become sometimes successful traders, but more generally lawyers, phy-As a matter of fact, the rate of mortality is sicians, teachers, priests and politicians. These, it is to be noted, readily intermarry with the whites: "between the whites and the Indians there are, apparently, no social barriers, and certainly none between the whites and the mixed descendants of Indians and whites. In pressive; but the city itself is not unhealthful. fact, the average Mestizo is not to boast of his Indian ancestry, and some of the most less malaria and yellow fever than at many learned and influential men of the country are the sons or grandsons of Indian women." The mulattoes and the quadroons are seen in most of the large cities, especially on the coast and in the valleys of the great rivers. Mr. Scruggs says assures us that it never really deserved the that waile in the ordinary relations of life they are never ostracized by either whites or blacks,

it is yet manifest to any close observer that they

there are never any overt manifestations of antipathy. Especially do the mulattoes seen to constitute an unfortunate class, generally ill-contented, restless, suspicious and exacting: they manage to live somehow without doin much work. Of course there are honorab exceptions; a few of them have attained to re spectable positions in the learned profession and a few are successful business men in small way. The Zambos, or mixed descend ants of Indians and negroes, do not rank high n the social scale. They are rarely men of affairs, and as a class they are dissolute and idle. They have few of the virtues of either the negro or Indian and often exhibit the worst vices of both. They are usually treach erous and quarrelsome, and for the most part live indolent and immoral lives.

tions, making a total of seven in all, to say nothing of the fusion of all the seven in one amalgam to which Humboldt failed to give name. All these occupy a common country, speak the same language and profess the same form of religion. As regards the consequences of this agglomeration, a sharp distinction must be drawn between the West Indian Islands and the communities on the mainland of Cen tral and South America. In some of the West Indies the condition of society brought about by the mixture of white and colored races i deplorable. The Indian of pure descent has almost entirely disappeared. In certain islands the negro and his descendants constitute the dominant race. We see mulattoes quadroons and octoroons on every hand, bu few or no Mestizos and Zambos. Generally you will see ten negroes to one white man o pure blood. To all intents and purposes Hayt and San Domingo are negro States, miscalled republics, for, in reality, they are little more than organized anarchies, in which the white man and the mulatto are both objects of averion. Even in Jamaica, where order is at tained by external force, a white family can seldom live in either peace or safety outside the cities; and sugar plantations that were once very valuable can now be bought at less than half their former price. In Barbadoes the few white men who still remain do so from necessity rather than choice. Even in Trinidad and British Guiana order is preserved only by the strong arm of the British Government. It is only in Mexico and the States of Central and South America that the three primal races and their mixed descendants live in comparative harmony. It is only there that may be witnessed the slow but steady process of amalgamation. What the final outcome may be Mr. Scruggs leaves to conjecture: "The idea of an amalgamation of the white and colored races is truly shocking; yet some believe, and others venture to hope that, decades hence the result may be a composite race, adjusted to the climate and environment, homogeneous in character, and, therefore, better adapted to the task of self-government than their bete rogeneous ancestors." As regards Colombia our author notes that there never has been anything like a race conflict among the races which make up the composite population; for in none of the numerous civil wars of the country has the "color line" ever been drawn; neither do the words "white" and "colored" anywhere appear in the fundamental or statutory laws of the republics. Since 1824 all the inhabitants have enjoyed equal civil and political privieges; all have had equal accommodations on public vehicles; the hotels and places of amuse ment are open to all alike; all attend the same schools, colleges and churches. In explanation of this correlation, it has been said that, since the independence of Colombia was at tained, no one race has ever been in the ascendant: that slavery went down with mor archic rule when all class distinctions were obliterated: that, even before this, the three primal races had already become too closely identified to leave room for ethnic prejudic Mr. Scruggs admits this to be true.

"But how." he asks, "shall we explain the explanation? In other words, whence came the conditions precedent to this civic and po litical amalgamation?" This question be would answer thus: "I apprehend that, if we go back far enough, the true explanation may be found in the policy and example of the Roman Catholic Church, which has always been and is still the dominant power in the country The church has always been, and is still, the only bond of union between these heterogeneous peoples dwelling side by side in the same community and never, either by precept or example, has the church recognized any race

community: and never, either by precept or example, has the church recognized any race distinctions. Even in the old colonial days, when the indian and the negro were both slaves and when class privileges were still preserved, white and colored, master and slave, were on terms of equality before the sacred altars of the church. All mere social distinctions were left at the threshold of the chapel or the cathedral. Under such conditions race prejudice would naturally be less conspicuous than in countries where diverse forms of religion afforded no such common bond of union."

There is no doubt that with the exception of Chill, which is only a partial exception, revolutions have been chronic in the Spanish-American commonwealths since the ostensible achievement of their independence. Mr. Scruggs is not one of those who would on that account despair of republican government in Latin-America. He points out that, even if it be admitted that the Spanish-American communities were not prepared for self-government, the question naturally arises: When or how, or under what circumstances would they have ever become better fitted for it? "Certainly not by remanding them to political slavery, as it was proposed to do at the Congress of Verona in 1822. To borrow one of Macaulay's metaphors, a prisoner long accustomed to the darkness of his cell is naturally dazed and blinded when led out into the sunlight but certainly his blindness is not to be cured by remanding him to his dungeon. He must become accustomed to the sunlight before he can appreciate it and utilize it. So it is no self-government; there must be a beginning and a succession of experiments. Each experiment will be marked by blunders; but it is only through repeated efforts that ultimate success is attainable. Moreover, good govexperiment will be marked by blunders; but it is only through repeated efforts that ultimets success is attainable. Moreover, good government is never made to order. It must grow: it must be evolved through the painful experiences of generations. Sooner or later, but in due course, public sentiment will grow up to higher and juster conceptions of civil and religious liberty, whereupon there will be a readjustment to new standards and new relations. The visionary and impracticable readjustment to new standards and new re-lations. The visionary and impracticable theories born of the first French revolution and transplanted to this continent by Jeffer-son and Santander had to receive a fair trial. The trial is now over, and the experiment has taught the people of both hemispheres a whole-some lesson."

In a chapter dealing with the Monroe Doctrine and the Mosquito Coast controversy, Mr. Scruggs demonstrates that the erection of the Woodcutters' Settlement "between the rivers Belize and Honda into the crown colony of British Honduras was a flagrant violation of the Clayton-Bulwer Treaty." An absord attempt was made in a late number of the National Review by Mr. Moreton Frewen to prove that the Belize Settlement was not comprehended under the term Central america used in the Clayton-Bulwer Treaty. Let us look at the facts as they are set forth in the book before us. By the treaty of 1783 between England and Spain, Great Britain agreed to withdraw entirely from "Central america" and to "forever abandon any and all claims she might have had to territory there." To British subjects, however, was granted by this treaty an extension of a former permission to cut and export mahogany and dyewoods from a narrow strip of territory "between the rivers Belize and Honda; "but this concession was to convey no political rights or privileges, and in no way to interfere with Spain's right of eminent domain. It in no way impaired Spain's acknowledged sovereignty and jurisdiction over any part of Central america or of the adjacent islands. It is indisputable that by this treaty the tolerated Woodcutters' Settlement in the Belize was recognized as included within Spain's possessions in Central America. This was sufficiently manifest from the very terms of the concession. In order, however, to prevent any possible misunderstanding on this point, the treaty contained a clause which expressly stipulated that this "permission" to cut and export timber was never to be construed as "in any wise derogatory to" Spain's "abso lute sovereignty," not only over that particula territory, but over all other territory in Central america. As if to impart still greater empahsis to the declaration, there was an additional clause whereby England bound herself "to demolish any fortifications" which had been erected there

plicit. The patent purpose was to do away, once and forever, with any semblance of claim which Great Britain then had, or might at any future time set up, to any portion of Central america or to any of the adjacent islands. To quote the words of the treaty itself, the inhibition embraced "the whole of the Spanish american Continent."

Despite these express limitations, the British Cabinet soon began a system of quibbling, and by ingenious and strained constructions sought to render them nugatory. It was alleged that the words "Spanish-America" Continent" as employed in the English text of the treaty were of "such general import as Here, then, we have three primal varie warranted the British Government in placing its own construction upon them:" and that ties or "races," and four miscegenic combina-"to determine upon prudential reasons" whether the Mosquito Coast and the contiguous outlying islands came within the general inhibition. This pretension led to the explanatory agreement, or supplementary treaty of 1786 of which, apparently, Mr. Moreton Frewen has never heard, but which declared as the sense of the Treaty of 1783 that his Britannic Majesty's subjects should "at once and forever and without exception evacuate" not only the entire Mosquito country, but "the whole of Central America, including all adjacent islands." The privilege previously granted to British subjects to cut and export mahogany and dyewoods was not to be interfered with, but this was stated to be on the express condition that the territory was to be indis putably acknowledged to belong of right to his Catholic Majesty, the King of Spain. This provise in the Treaty of 1786 was supplemented by another condition of marked significance. namely, that British subjects were not to fur nish "any arms or warlike stores to the native Indian occupants," but to refrain from inciting them to "sedition and rebellion" against the Spanish colonial authorities. Some months afterward, when the matter came up for discussion in the British House of Lords, a motion was made to disagree with the terms of the of its provisions, thus ratifying the obligation to "abandon at once and forever" all British claim or pretended claim to any form of territorial dominion or sovereignty in any part of Central America or to any of the adjacen

islands. The question then arises: When and under what circumstances and by what authority was this relation of Great Britain to Central America changed? Mr. Scruggs says that he has sought in vain for a satisfactory answer He has been able to find one neither in any subsequent treaty nor in any legislative ac of either Great Britain or Spain. The status of Central America was certainly not changed by the Treaty of Amiens in 1802, nor was changed in 1809, when England entered into an alliance with Spain against the first Napoleon. It was not changed in 1814, when the commercial treaties between England and Spain were revived and those of 1783 and 1786 were expressly and specifically reaffirmed Nor was it changed in 1817, when by statute the British Parliament acknowledged tha "the British settlements" in the Belize, Mosquite and other portions of Nicaragua and Hon duras were "not within the territory and do main of the British Crown." It was not changed two years later, when the same declaration was reiterated; nor was it changed as late as 1820 when Capt. Bonnyonstle of the British Navy published a book in which he described the Mosquito shore as "a tract of country which lies along the northern and eastern coasts of Honduras and Nicaragua, once claimed by Great Britain, but which she abandoned in 1786, in accordance with treaty obligations." It thus appears that during the period o thirty-four years from 1786 to 1820 the whole of Central America, including all the adjacent islands, was acknowledged by Great Britain to be the rightful property and domain of the Spanish Crown. In 1821 the Central American colonies threw off their Spanish allegiance and esserted and made good their independence. Nicaragua, Honduras and Guatemala, till then Spanish colonies, became autonomous free States. Some years later they united with other tral American Federal Union. When that union was finally dissolved in 1838, they re-

tral American Federal Union. When that union was finally dissolved in 1838, they resumed their position as separate and independent States, and were duly recognized in that capacity by the Powers of the world. How did these acts affect the title to the soil and sovereignty of Central America? Mr. Seruggs submits that at this stage of the world's history it would be a work of supererogation to prove that those provinces by their successful revolt and acknowledged independence succeeded, each within its respective limits, to all the territorial rights which the parent country had before the revolt. This is a well-established principle to which no country is more firmly committed than is England herself. From the many proofs that might be cited, Mr. Scruggs selects the treaty of Dec. 26, 1826, between Great Britain and Mexico. Mexico had then but recently revolted from Spain. In the treaty mentioned, Great Britain recognized Mexico as the legal successor in title with Spain to all the territorial rights within the limits of the former colony; and she moreover solicited and accepted from Mexico a continuance of the "permission" granted to British "subjects" by Spain in 1786 to cut and export mahogany and dyewoods from Central America. It is not material to inquire here whether the particular timber districts named reverted of right to Guatico, for that inquiry would involve only a question of limits as they existed under the parent country and concerned only themselves. No matter how that question should be settled, the recognition by England of the legitimate succession in title from Spain was equally conclusive. It appears, then, that as early as 1786 Great Britain had abandoned "unconditionally and forever" any and all claims she then had to any form of territorial sovereignty, not only on the Mosquito Coast but elsewhere in Central America; that she tacitly, if not explicitly, renffirmed Spain's title to that coast by every subsequent public act up to the year 1820; and that by her treaty with Mexico of Dec. 28

What Has Been Done for Egypt in Fifteen

Years Two purposes have been kept in view in The Red mption of Egypt by W. BASIL WORS-FOLD (Longmans). The author's primary aim was to institute a detailed comparison between ancient and medieval Egypt on the one hand and modern Egypt on the other. In order to set forth, however, the actual state of things in that part of the Nile Valley which lies north of the First Cataract, he was obliged to describe the remarkable improvements which have been effected since the beginning of the English occupation. It is his detailed accounts of th public works completed or projected and the iscal, administrative and educational reforms to which we would here invite attention There is no achievement in her history which reflects so much credit upon England as her discharge of the stewardship which she assumed in Egypt some fifteen years ago. Aside rom her reconquest of the Soudan and he jeliverance of the remnant of its people from frightful degradation and oppression, she has wrought for the Egyptians themselves a benefcent revolution which, if we bear in mind the brevity of the time employed, must be recognized as without a parallel. It is probabl that at no time in the last six thousand years have the inhabitants of the Nile Valley north of the First Cataract been so numerous, so pros perous and so happy as they are to-day under English supervision and control.

As we traverse the Delta from Alexandria to Cairo the eye encounters on every hand evidences of the cotton industry. What coal is to England or wool to Australia, that cotton is to Egypt. In ancient times the national income was derived from grain; it is now drawn from cotton, which provides three-fourths of the total export. A very few figures will reveal the importance of the cotton industry to Egypt. Although the geographical area of the country covers some four hundred thousand square miles, its habitable area is expressed n round numbers by the diminutive total of 3.000 square miles. Of this relatively small superficies three-twelfths are covered by the

by her subjects, and "to prevent the erection of | two-twelfths by the innumerable canals which any new ones." Mr. Scruggs submits that it fertilize the soil In other words, the Delta would be difficult to make language more exafford together some five and a half million acres of cultivable land, the larger half of which belongs to lower Egypt and, practically, to the Delta. The best of this land is appropriated to the cultivation of the cotton plant, which is grown in the Fayum as well as in the Delta In the government plantations, that is to say, on the estates which are worked by the Domains Administration, and on those of the rich and enlightened owners, the land is put under cotton crop only once in three years; in no case is a crop aken from the land oftener than once in two rears. Nevertheless, the value of the cotton crop so far exceeds the value of all other crops that of the sixty million dollars' worth of exports which Egypt sends forth annually \$45,000,000 are due to this industry. The cane sugar industry, which ranks next in importance and at which we shall glance presently, provides an export of from \$2,500,000 to \$3,750,000 in value The amount of cotton grown in Egypt has advanced from 2.792.184 kantars—the kantar is 99 pounds-in 1881 to 5,879,479 kantars in 1896-97. It strue that during the same period the average price of the kantar has fallen from rather more than three Egyptian pounds to rather less than wo; we should mention that the Egyptian pound s worth more than the pound sterling by about twelve cents. This fall in value is met in part, a least, by the adoption of improved methods f cultivation and preparation. Thus in the Domains Administration, where the most economic methods are employed, it has been found possible to increase the net profit per feddanhe feddan is slightly larger than the English acre-in spite of the adverse market. If we compare the period in 1879-87 with that from 888-97 we find that a yield of 2.77 kantars of otton, selling at £E2.53 per kantar, in the former period has been replaced a yield of 4.36 kantars. Thus, although this increased yield was sold for only £E2.06 kantar owing to the fall in price, it et gave a net return per feddan which was £E1.69 in excess of the net return of the previous period. Similarly increased yields of cottor eed and of cotton wood were secured, and thus by economies and improvements the total return per feddan on the government estates was raised from £Es.61 in the former period to

£E10.57 in the latter. Mr. Worsfold dwells on the steady expansion of the Egyptian cotton crop in the face of the ecline in value, because it touches the very foundation of Egyptian finance. The large increase in the supply has caused the margin of pilce between Egyptian and American cotton contract. The Egyptian cotton is (with the xception of a small amount produced in the South Sea Islands) the finest in the market, and as such it is used for the finest cotton cloth and for cambric. It commands, therefore, a price in advance of the American conton; but, on the other hand, the American cotton, by virtue of its vastly larger output, controls the market. Not only does a fall in the value of American cotton produce a decline in the value of the Egyptian, but the more expensive Egyptian cotton, from its largely increased production, heapens more rapidly than does the American No doubt the Egyptian industry is secure, in spite of falling prices, so long as its product commands a larger price than that of its rivals. but the extent of its security is measured by the margin of price which separates the produce of the respective countries. The breadth of this margin and the degree in which it affects Egypt will appear from the fact that in January, 1897, American and Egyptian cotton were selling respectively at 4d. and 5.%d. per pound, showing a difference of 1.%d. in favor of Egypt: while, at the end of the year, the prices were while, at the end of the year, the prices were 3½d, and 4 1-16d, respectively, that is to say, the margin had contracted from 1½d, to 13-16d. At the same time the demand for Egyptian cotton at the reduced price has increased. Russia, in particular, has bought more freely since the fall in prices. Here again there is a significant fact to be noted. In spite of the economies mentioned above, the main factor in the increased output of the fibre is the extension of the area under cultivation, and this extension means in Egypt an increased supply of water. The improvements already effected in the irrigation of the Delta will be examined in a subsequent paragraph, and we need amined in a subsequent paragraph, and we need say no more just now than that it is intended to add to the already largely increased water supply of the Delta by new works which are already in course of construction. Both in ultural railways, due provision is being now the Public Works Department for that fur extension of the cultivable area which is puired for the continued prosperity of the on industry under its present conditions, ore leaving this subject we may recall the that cotton cultivation was introduced Mohammed Ali as early as 1821, but it only Mohammed Ali as early as 1821, but it only assumed importance under the stimulus of the Civil War in America, which for the time being deprived the Lancashire mills of their American supplies. The abnormal prosperity which that war brought to Egypt was, of course, short-lived, but it served as an excuse for Ismail's extravagances. The present prosperity of the industry has been secured by genuine and permanent improvements in the condition of the area available for cotton culture and by economies in the preparation of the fibre. economies in the preparation of the fibre Nevertheless, during the whole period in which Nevertheless, during the whole period in which these improvements have been operative, that is to say from the time when in 1886, English influence became predominant in the government of the Khedive, the industry has been confronted with a fall in prices so considerable that, while the output has been doubled, the value of that output has remained practiculty stationary. The fact shows how economic conditions entirely beyond the control of the most efficient administration may hinder, or even completely baffle, the best efforts.

Now let us look at Egypt's sugar culture.

The cultivation of the sugar cane in the Nile

Valley for export purposes is an industry of

comparatively recent date. Even at the pres-

ent time nearly the whole of the sugar ex-

ported is produced by the Government mills

of the Daira Administration. Apart from

the Daira product it is difficult to procure any exact returns. Consequently Mr. Worsfold offers only such approximate figures as he has been able to obtain. It appears that in 1897 about 2,000,000 kantars, or say 90,000 tons, of sugar were raised in Egypt. Of this amount only 69.500 tons were exported, the remainder being retained for domestic consumption. The value of this export was £634,518, of which sum £583,000 was paid for the sugar produced by the Daïra Administration. It is obvious, therefore, that the exported sugar is furnished almost entirely by the Government mills. These mills, which have been erected at various points on the Daïra lands, are nine in number; private enterprise is represented by four large and two or three small mills. These latter are, however, mainly occupied in preparing sugar for local consumption. The amount of capital ininvested in the private mills is about £2,000,000, of which about one-tenth only is English. To complete the general view of the position of sugar cultivation in Egypt at the present time, one should add that all the sugar is obtained from cane, and that, with the exception of a small quantity grown in the Delta, this cane is exclusively produced in Upper Egypt, where the area under sugar crop is being gradually extended.

It is evident that Mr. Worsfold is justified in taking the returns furnished by the factories of the Daïra Administration as representative of the result which may be attained by scientific methods of production. Here, as in the cotton industry, the yield of the factories has been increased by improved processes of production and by increased economy in working. The success which has followed the efforts of the Administration in these directions is shown by the fact that the percentage of sugar obtained from the canes has risen from 9.38 in 1890 to 11.02 in 1897, while, on the other hand, the cost of production per 100 kantars has decreased in the same period from £42.003 to £33.174. In addition to this percentage of sugar, a small amount of alcohol and, of molasses is obtained from the cane. At the same time the sugar industry, like the cottton industry, has been confronted by a fall of prices, a material fact against which the Government, however strenuous and enlightened, is powerless. While in 1881 the Daïra sugar of the first grade brought £1 3s, per kantar, it had to be sold in 1897 for 9 shillings. This was the lowest price which had been obtained during the preceding twelve years, and the fall in the twelvementh represented a loss of £120,000 to the Administration. In 1898 there

compensated in part for the deficiency in the sugar crop of that year. As regards the destiation of the Egyptian sugar export, it is interesting to notice that during the last two or three years the United States have become the chief purchaser, while the export to England has rapidly fallen off. The increased purchases of the United States are attributed partly to the war with Spain and partly to the tariff wars of the United States with France and Germany. Of the 69,800 tons of sugar exported from Egypt in 1897, 52,300 tons went to the United States, 9,000 to England, 4,600 to the Continent of Europe, while the remainder was sent to India and to Red Sea ports. Although at the present time the produc-

tion of sugar for export purposes is almost entirely a State industry, two circumstances point to the development of private enterprise in the future. In the first place, arrange ments have already been made for winding up the Daira Administration in 1905; and, in the second place, the area available for the cuitivation of the sugar cane will be greatly increased by the new irrigation works in upper Egypt. The extent of the lands administered the Daira Commissioners has been reduced by annual sales from 504,901 feddans in 1881 to 304,988 feddans in 1896, and as the result of this process the Daïra debt has been reduced from £9,512,900 in 1881 to £6,431,500 in 1893. Since 1896 the demand for the Daïra lands has increased, and a contract was signed on June 21, 1898, under which "whatever lands belonging to the Daïra Administration remain unsold on Oct. 15, 1905, will pass into the possession of a syndicate. The Government administration will then cease to exist." Of the second circumstance above mentioned as pointing to the development of private enterprise, it is sufficient to say here that the creation of the Nile reservoir at Assuan and the subsidiary dam at Assiat will have the effect of placing no fewer than 774,000 feddans of land now served only by flood canals under perennial irrigation. In other words, this immense area, to say nothing of new lands reclaimed from the desert, will be rendered available for the cultivation of sugar cane. The significance of these figures, which are official, will be recognized when we call to mind that the entire cultivable area of unper Egypt consists at present of but 2,750,000 feddans.

As cotton and sugar at present constitute the built of the appear to product of Egypt. Mr. to 304,988 feddans in 1898, and as the result of

when we call to mind that the entire cultivable area of upper Egypt consists at present of but 2,750,000 feddans.

As cotton and sugar at present constitute the bulk of the export product of Egypt, Mr. Worsfold does not leave the subject without some additional reference to the material fact which as we have seen, affects both industries alike, to with the fall of prices. We have stated that the cotton crop has been doubled in the last fifteen years, yet its export value remains practically the same; the sugar export has been quadrupled, but the value of this export, instead of being quadrupled, has been only doubled. After due allowance is made for the increased purchasing power of the money thus earned by Egypt, the fall in prices nevertheless constitutes an adverse force which the Egyptian financier must be prepared to meet. We learn from the author the views of Sir Elwin Palmer, the author of the Tableaux Statistiques, issued by him as Financial Adviser in 1898. According to Sir Elwin, there are certain conditions which, in his opinion, reader both the cotton and sugar industries of Egypt secure, even on the hypothesis that the fall in prices shall continue. In respect of the cotton industry, it is improbable that any further economies in production can be effected; the security of this industry lies in the fact that Expytian cotton, owing to its superior quality, will always be preferred to that grown in America or elsewhere. Cotton will continue, therefore, to be cultivated in Egypt, even after prices have fallen so low as to render cultivation in the United States no longer profitable, especially in view of the fact that the Egyptian acre under cotton yields twice as much as the American. In other words, so long as the civilized world shall continue to use cotton goods the raw cotton of Egypt will find a market. Sir Elwin Palmer also considers the sugar industry safe, because, apart from any future economies which may be effected in the working of the factories, the cane can be grown in Egypt at a less c fected in the working of the factories, the cane can be grown in Egypt at a less cost than in any other country. The two factors which together constitute this minimum cost are the fertilization of the fields by the natural irrigation of the Nile and the system under which the fellah, or native agriculturist, together with his wife and children, cultivates the cane on his own grounds and then sells it to the factory. The labor with which the sugar industry is thus supplied through the voluntary efforts of the fellahin is economical in the highest degree.

III.

Let us pass to the public works by which,

since the beginning of the English occupation the productive power of Egypt has been greatly increased, and by which it is destined to be increased far more signally. To begin with the great weir, best known by its French title, barrage, which bars the Nile, and which, next to the Pyramids themselves, is the most interesting object in the immediate neighborhead of Cairo. The story of the barrage is the record of a brilliant conception converted by nto a costly failure of a costly failure raised against all expectation to fulfil the purposes of the original design; of five provinces saved from starvation and a country from financial ruin by English skill and determination. Let us recall the system of irrigation in which the barrage was meant to be and now is an all-important factor. It is well known that throughout Egypt the fields are watered, not by the clouds, but by the Nile. In upper Egypt, with the exception of the fields under cane and cotton, the water is brought to the cultivable lands during the season of high Nile only-that is to say, once a year, during the months of August, Sentember and October, when the river is in flood. When the flood has passed away the fields, thus fertilized by water and deposits of red mud, are sown with seed from which the crops are gathered in the early spring. Then the fields lie fallow until the season of flood returns. This natural system of irrigation, which involves no artificial interference with the seaward flow of the Nile, has served to fertilize the Egyptian fields from the time of the Pharaohs, and is still practised in upper Egypt, where the sole channels of irrigation are the nili, or "flood" canals. In lower Egypt, however, the artificial and more effective system in which the nili canals are supplemented by sefi, or "summer" canals, was introduced early in the century by Mohammed Ali. Here the fields are no longer flooded for a brief period and then left fallow when the winter crops have been gathered, but they are furnished with a moderate and regular supply of water throughout the year. For the purpose of providing these perennial supplies the Nile flood is no longer sufficient, but the seaward flow of the great river must be checked, and a sufficient head of water maintained at all times to fill the summer canals. The immediate object of the change was to introduce the cultivation of cotton and sugar, since for these more valuable crops it was necessary that the land should not be submerged, but irrigated and irrigated

during the dry season, when the flood canals would be empty and useless. When the cultivation of cotton was introduced by Mohammed Ali, and with this end in view a system of perennial irrigation was contemplated in the Delta, it was at once recognized that the natural method of securing the needful supply of water would be to hold up the Nile at the point where its stream divides into the two main branches which flow respectively to Rosetta and Damietta. The design of the barrage to be constructed at this point was furnished by a French engineer. Mougel Bey, and the work was begun about the year 1843. Eighteen years later the structure was ostensibly completed at a cost of \$9,000,000 besides the unpaid labor of countless annual correes and of battalions of soldiers." Across the whole width of the river, from the east bank to the isthmus which forms the apex of the Delta, and again from the isthmus to the west bank, stretched two long lines of arches. crowned at intervals with towers and gateways. Of the two bridges thus formed, the first was carried by 71 arches across the Damietta branch of the Nile, and measured 535 metres in length; the second, which crossed the Rosetta branch, had 61 arches and was 465 metres long. The united length of the roadway carried by both bridges was 1,095 yards Each arch was to be fitted with gates, and by means of these gates the flow of the river was to be regulated or entirely stopped. When the river was in flood the gates were to be opened; when the river was low the gates were to be dropped and the up-stream level was to be raised 14 feet 9 inches, while the head of water thus secured was to be distributed by three main canals throughout the Delta. At the same time the navigation of the Nile was to be kept open by two locks, placed respectively at the eastern and western extremities of the dam. In due course the eastern or Rosetta barrage was fitted with its gates, and in 1863 this part of the structure was put in operation. The immediate result of closing the gates was to

was a slight rise in price, a circumstance which show that the barrage was wholly incapable

of bearing the strain to which it was subjected. Although the maximum head of water held up-and that only for a short period-was but 5 feet 9 inches, the masonry began to crack, and in 1867 a "serious settlement" was reported. The arches of the Damletta branch were never even furnished with gates, and from the time of the settlement in the Rosetta branch the entire structure was practically abandoned as useless for the purpose for which it was designed. The whole magnificent work had been ruined by the worthlessness of the foundations upon which it had been built and a meagre supply of water for the summer irrigation of the Delta had to be henceforth provided by steam pumps and other costly expedients. It is true that in the time of Ismail Khedive Sir John Fowler reported that the barrage could be rendered efficient at a cost of \$6,000,000, but no attempt was made to carry out the experiment. While the barrage thus remained condemned as "costly failure." the condition of the cultivated area of the Delta slowly deteriorated. The canals were becoming choked and useless, neglect of any proper rotation of crops and there was no water supply wherewith to bring fresh lands under cultivation. In short, the very existence of the cotton industry, the chief fiscal resource of Egypt, was endangered. Such was the position of affairs when Str

Colin Scott-Moncrieff was summoned from India in 1883 to organize an irrigation service for Egypt. In this and the following year he was joined by a small group of anglo-Indian engineers. These men, by dint of strenuous exertion and a skilful application of their Indian experience to the conditions of Egypt succeeded, in the course of the next ten years, n providing the whole cultivable area of both the Delta and the Nile Valley with a trustworthy supply of water. For the purpose of irrigation the whole country was divided nto five "circles" or districts, of which three were in lower and two in upper Egypt. The whole of the irrigation works within each circle was placed under the absolute control of one capable official, styled "the Inspector." Inder the direction of these inspectors the carals were cleared and improved, new canals were constructed, the Nile banks were repaired and an effective system of drainage was begun. The immediate and pressing task howeverwhich awaited the new Inspector-General was o supply the cotton plantations of the Delta with water. With this task the question of repairing the barrage was inseparably involved. The appearance of the barrage in 883 was by no means promising. "The work nad been so long neglected," writes Sir Colin in an official note, "that timbers were rotten, iron was rusted, there were no appliances of ools, and attached to it was a large establishment of superannuated and incompetent men who for years had done little besides drawing their pay." Nevertheless, Sir Colin and an Anglo-Indian colleague proceeded to test it. n the spring of 1884 a sum of £25,611 was spent n "patching up and working the barrage." That year, during the period of low Nile, the water was held up 7 feet 2 inches, "This flushed the canals, and gave an unwonted impulse to the irrigation. Fortune so far attended us that the cotton eron of 1884 was the best on record." In 1885 the process was repeated: in that year the water was held ip 9 feet 10 inches, at a cost of only £18,246. In the same year the Egyptian Government was permitted by the Powers to borrow £1,000,. 000 for irrigation works. The opportunity was now offered of converting temporary expedients into a permanent restoration, or in other words of rendering the barrage on which hung the irrigation of lower Egypt at once efficient and ecure. It is to be noted that the barrage was built on nothing more solid than alternate beds of fine river sand and alluvial mud. This would not be a very favorable foundation for an ordinary bridge, and the barrage is not only exposed to the risks of an ordinary bridge during the flood season, but during low Nile to much graver ones. The water on the upper side in June, 1886.

was 15.74 feet deep, while on the lower side is

was only 5.90 feet, a difference of nearly 10 feet.

Hence a constant tendency of the water to

percolate under the foundations and establish

uniform level. The water thus percolating

through the river sain and alluvial mind of the foundations is likely to carry particles along with it and by degrees to undermine the whole. Evidently some such action had caused the alarming cracks in 1807. The remedy was to place an "impermeable har "across the river, through which the water either could not travel at all or if tidd travel would have its velocity so checked that instead of washing out the sand and mud beneath the arches of the dam it would leave the particles which it brought with it behinds on the substratum, instead of being lossened and the could have a substratum instead of being lossened of the could have the particles which it brought with the hind so the substratum, instead of being lossened of the could have a substratum substratum, instead of heing lossened of the could have a substratum the substratum in the substratum that the foundations on the substratum substratum that the foundations on the substratum that the foundations on the substratum that the substrat

ference between the two levels will have eight feet.

It only remains to add that in a few years the system of rerennial irrigation will be applied to the whole of the Nile Valley. The necessary works for the storing of water in upper Egypt—to wit, the Nile reservoir in Assuan and the subsidiary dam much lower down the river at Assiut—are already under construction. We have previously pointed out how yastly the cultivable area of upper Egypt will be increased by these works when complete.